In [1]:
```
#Introduction to functions in python
function in Python is defined as ---> def
```

In [3]:
```
def greet_user():
    """Display a simple greeting"""
    print("Hello!")
```

In [4]:
```
greet_user()
```

```
Hello!
```

In [ ]:
```

```

In [5]:
```
#Passing Parameter to function
```

In [6]:
```
def greet_user(username):
    """Display simple greeting"""
    print(f"Hello, {username.title()}")
```

In [7]:
```
greet_user('muzakkir')
```

```
Hello, Muzakkir
```

In [ ]:
```

```

In [8]:
```
#Passing argument and parameter to function
```

In [10]:
```
def find_restaurant(name, locality, star_review):
    """Display information of a restaurant"""
    print(f"\n Name:,{name.title()}")
    print(f"Locality:, {locality.title()}")
    print(f"This restaurant have got, {star_review}stars")
```

In [11]:
```
find_restaurant('westin', 'koregaon park', 4.9 )
```

```
 Name:,Westin
Locality:, Koregaon Park
This restaurant have got, 4.9stars
```

In [16]:
```
def find_restaurant(name, locality, star_review):
    """Display information of a restaurant"""
    print(f"Name:{name.title()}")
    print(f"Locality:{locality.title()}")
    print(f"This restaurant have got {star_review} stars")
```

In [17]:
```
find_restaurant('sheraton', 'shivaji nagar', 5 )
```

```
Name:Sheraton
Locality:Shivaji Nagar
This restaurant have got 5 stars
```

In [ ]:
```

```

In [18]:
```
#Multiple function calls:
```

In [21]:
```
#students details

def student(gender, name):
    """Display student's information"""
    print(f"There is a {gender} student his name is {name.title()}")
```

In [23]:
```
student('male', 'joe')
```

```
There is a male student his name is Joe
```

In [ ]:
```

```

In [24]:
```
#Default argument
```

In [25]:
```
def describing_myself(my_name,gender = 'male'):
    """Displaying my details"""
    print(f"My name is {my_name.title()}")
    print(f"I am a {gender}")
```

In [26]:
```
describing_myself('muzakkir')
```

```
My name is Muzakkir
I am a male
```

In [27]:
```
def describing_myself(my_name,gender = 'female'):
    """Displaying my details"""
    print(f"My name is {my_name.title()}")
    print(f"I am a {gender}")
```

In [28]:
```
describing_myself('monica')
```

```
My name is Monica
I am a female
```

In [31]:
```
def get_formatted_name(first_name, last_name):
    """Return a neatly formatted full name"""
    full_name = f"{first_name} {last_name}"
    return full_name.title()
```

In [32]:
```
get_formatted_name('leo','messi')
```

Out[32]:
```
'Leo Messi'
```

In [ ]:
```

```

In [33]:
```
#Arbitrary arguments
```

In [34]:
```
def ice_cream(topping):
    """Print the list of ice cream flavours"""
    print(topping)
```

In [35]:
```
ice_cream('vanilla')
```

```
vanilla
```

In [36]:
```
ice_cream('vanilla', 'black current', 'choclate')
```

```
---------------------------------------------------------------------
----
TypeError                                 Traceback (most recent call l
ast)
<ipython-input-36-64c427a217f5> in <module>
----> 1 ice_cream('vanilla', 'black current', 'choclate')

TypeError: ice_cream() takes 1 positional argument but 3 were given
```

In [37]:
```
#Improvising the code
```

In [38]:
```
def ice_cream(*topping):
    """Print the list of ice cream flavours"""
    print(topping)
```

In [39]:
```
ice_cream('vanilla','black current', 'chocolate')
```

```
('vanilla', 'black current', 'chocolate')
```

In [ ]:
```

```